

## Summary of Changes to Arizona's Common Core Standards – Mathematics

In order to help facilitate the transition to Arizona's Common Core Standards and the PARCC assessment, this document provides the changes in standards (from 2008 to 2010) and in assessments (from AIMS to PARCC). Descriptions of the document's columns are as follows.

**Addressed by AIMS (2013 and 2014)** – The Performance Objectives identified in the two columns below this heading are to be embedded in instruction and are assessed by AIMS in 2013 and 2014.

- **Removed from Specifically Being Tested in 2015** – Some of the more “granular” POs from the 2008 Standard have been incorporated into the more “global” standards of Arizona's Common Core Standards by becoming examples or prerequisite knowledge for teaching the concept. This column notes the Performance Objectives that have been removed as being tested as a specific objective. The Performance Objectives identified in this column will still be assessed by AIMS in 2013 and 2014.
- **Moved to a Different Grade Level** – Performance Objectives listed in this column will move to a different grade level for Arizona's Common Core Standards and the PARCC Assessment as indicated at the end of the PO. The Performance Objectives identified in this column will still be assessed by AIMS in 2013 and 2014 at the current grade level.

**Addressed by PARCC (2015)** – The Performance Objectives identified in the two columns below this heading are included in the 2010 Standards and are expected to be addressed by the PARCC assessment.

- **Moved from Another Grade Level** – For alignment to Arizona's Common Core Standards and to be addressed by the PARCC Assessment, the Performance Objectives identified in this column are moved into the current grade level from another grade level as indicated at the beginning of the PO.
- **New Standards** – As noted by an asterisk in the Mathematics Crosswalks, the standards listed in this column from Arizona's Common Core Standards are new and will not match any of the POs from the 2008 Standard. These new standards are expected to be addressed by the PARCC assessment.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
MHS-S1C1-02 (2008) Sort sets of numbers as finite or infinite, and justify the sort.	MHS-S1C1-03 (2008) Express that the distance between two numbers is the absolute value of their difference. MOVED to 7.NS.1b (2010)	MHS-S2C4-01 Solve network problems using graphs and matrices. SUBSUMED WITHIN OTHER CONTEMPORARY MATHEMATICS STANDARDS.	HS.N-CN.6 (2010) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.
MHS-S2C2-03 (2008) Use simulations to model situations involving independent and dependent events.	MHS-S1C2-03 (2008) Calculate powers and roots of rational and irrational numbers. MOVED to 8.EE.1 (2010)	MCWR-S2C4-01 Study the following topics related to vertex-edge graphs: Euler circuits, Hamilton circuits, the Travelling Salesperson Problem (TSP), minimum weight spanning trees, shortest paths, vertex coloring, and adjacency matrices. MOVED TO CONTEMPORARY MATHEMATICS AZ.HS.CM-DM.1.	HS.N-CN.8 (2010) Extend polynomial identities to the complex numbers. <i>For example, rewrite <math>x^2 + 4</math> as <math>(x + 2i)(x - 2i)</math>.</i>
MHS-S4C1-02 (2008) Visualize solids and surfaces in 3-dimensional space when given 2-dimensional representations and create 2-dimensional representations for the surfaces of 3-dimensional objects.	MHS-S1C2-04 (2008) Compute using scientific notation. MOVED to 8.EE.4 (2010)	MCWR-S2C4-02 Understand, analyze, and apply vertex-edge graphs to model and solve problems related to paths, circuits, networks, and relationships among a finite number of elements, in real-world and abstract settings. MOVED TO CONTEMPORARY MATHEMATICS AZ.HS.CM-DM.2.	HS.N-VM.1 (2010) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., $v$ , $ v $ , $\ v\ $ , $v$ ).
MHS-S4C1-05 (2008) Explore Euclid's five postulates in the plane and their limitations.	MHS-S1C3-01 (2008) Determine rational approximations of irrational numbers. MOVED to 8.NS.2 (2010)	MCWR-S2C4-03 Devise, analyze, and apply algorithms for solving vertex-edge graph problems. MOVED TO CONTEMPORARY MATHEMATICS AZ.HS.CM-DM.3.	HS.N-VM.2 (2010) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
MHS-S4C1-07 (2008) Use the hierarchy of quadrilaterals in deductive reasoning.	MHS-S1C3-04 (2008) Estimate the location of the rational or irrational numbers on a number line. MOVED to 8.NS.2 (2010)	MCWR-S2C4-04 Extend work with adjacency matrices for graphs, such as interpreting row sums and using the nth power of the adjacency matrix to count paths of length n in a graph. MOVED TO CONTEMPORARY MATHEMATICS AZ.HS.CM-DM.4.	HS.N-VM.3 (2010) Solve problems involving velocity and other quantities that can be represented by vectors.
MHS-S4C1-09 (2008) Solve problems using the triangle inequality property.	MHS-S2C1-01 (2008) Draw inferences about data sets from lists, tables, matrices, and plots. MOVED to 7.SP.2 (2010)	MCWR-S1C2-04 (2008) Define polar coordinates; relate polar coordinates to Cartesian coordinates. MOVED FROM 4 <sup>TH</sup> CREDIT TO ALGEBRA 2 HS.N-CN.4	HS.N-VM.9 (2010) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
MHS-S4C4-03 (2008) Determine the effect that changing dimensions has on the perimeter, area, or volume of a figure.	MHS-S2C1-05 (2008) Determine which measure of center is most appropriate in a given situation and explain why. MOVED to 7.SP.4 (2010)	MCWR-S1C2-05 (2008) Convert complex numbers to trigonometric form and then multiply the results. MOVED FROM 4 <sup>TH</sup> CREDIT TO ALGEBRA 2 HS.N-CN.4 & HS.N-CN.5	HS.N-VM.10 (2010) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.
MHS-S5C1-01 (2008) Select an algorithm that explains a particular mathematical process; determine the purpose of a simple mathematical algorithm.	MHS-S2C2-05 (2008) Use concepts and formulas of area to calculate geometric probabilities. MOVED to 7.SP.7b (2010)	MCWR-S1C3-01 (2008) Recognize the limitations of estimations by assessing the amount of error resulting from estimation and determining whether the error is within acceptable tolerance limits. MOVED FROM ALGEBRA 2 TO 9-10 HS.N-Q.3	HS.N-VM.12 (2010) Work with $2 \times 2$ matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
MHS-S5C1-02 (2008) Analyze algorithms for validity and equivalence recognizing the purpose of the algorithm.	MHS-S4C1-06 (2008) Solve problems using angle and side length relationships and attributes of polygons. MOVED to 8.G.5 (2010)	MCWR-S2C1-01 (2008) Solve problems by estimating and computing with one-variable and two-variable data. STAYED IN 4 <sup>TH</sup> CREDIT HS.F-LE.2 AND REDISTRIBUTED TO 9-10 HS.S-ID.1 AND ALGEBRA 2 HS.F-LE.2	HS.A-SSE.1 (2010) Interpret expressions that represent a quantity in terms of its context. a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. <i>For example, interpret <math>P(1+r)^n</math> as the product of <math>P</math> and a factor not depending on <math>P</math>.</i>
MCWR-S1C2-06 (2008) Apply DeMoivre's Theorem to calculate products, powers, and roots of complex numbers.	MHS-S4C2-03 (2008) Sketch and describe the properties of a 2-dimensional figure that is the result of two or more transformations. MOVED to 8.G.3 (2010) & 8.G.4 (2010)	MCWR-S2C1-02 (2008) Compare data sets using graphs and summary statistics, including variance and standard deviation, with or without technology. STAYED IN ALGEBRA 2 HS.S-ID.2 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.S-ID.2	HS.A-APR.4 (2010) Prove polynomial identities and use them to describe numerical relationships. <i>For example, the polynomial identity <math>(x^2+y^2)^2=(x^2-y^2)^2+(2xy)^2</math> can be used to generate Pythagorean triples.</i>
MCWR-S3C2-08 (2008) Find the major and minor axes, intercepts and asymptotes of conic sections.	MHS-S4C2-04 (2008) Determine the effects of a single transformation on linear or area measurements of a 2-dimensional figure. MOVED to 8.G.3 (2010) & 8.G.4 (2010)	MCWR-S2C1-03 (2008) Compute and explain summary statistics for distributions of data including measures of center and spread, including variance and standard deviation. STAYED IN 4 <sup>TH</sup> CREDIT HS.S-ID.4 AND REDISTRIBUTED TO ALGEBRA 2 HS.S-ID.4	HS.A-REI.5 (2010) Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
MCWR-S3C2-16 (2008) Identify the degree of a given polynomial function and write a polynomial function of a given degree	MHS-S4C3-02 (2008) Illustrate the connection between the distance formula and the Pythagorean Theorem. MOVED to 8.G.8 (2010)	MCWR-S2C1-04 (2008) Explain how sampling methods, bias, and the phrasing of questions asked during data collections impact the conclusions that can be drawn. MOVED FROM 4 <sup>TH</sup> CREDIT TO 9-10 HS.S-IC.6	HS.A-REI.7 (2010) Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. <i>For example, find the points of intersection between the line <math>y = -3x</math> and the circle <math>x^2 + y^2 = 3</math>.</i>
MCWR-S4C1-02 (2008) Explore geometries other than Euclidean geometry in which the parallel postulate is not true.	MHS-S4C3-07 (2008) Determine the solution to a system of linear equations in two variables from the graphs of the equations. MOVED to 8.EE.8b (2010)	MCWR-S2C1-05 (2008) Identify misleading uses of data and explain why they are misleading. MOVED FROM 4 <sup>TH</sup> CREDIT TO 9-10 HS.S-IC.6	HS.A-REI.10 (2010) Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
MCWR-S4C3-07 (2008) Graph equations given in polar coordinates.		MCWR-S2C1-07 (2008) Determine when arguments based on data mistake correlation for causation. MOVED FROM 4 <sup>TH</sup> CREDIT TO 9-10 HS.S-ID.9	HS.F-IF.3 (2010) Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. <i>For example, the Fibonacci sequence is defined recursively by <math>f(0) = f(1) = 1</math>, <math>f(n+1) = f(n) + f(n-1)</math> for <math>n \geq 1</math>.</i>
MCWR-S5C1-01 (2008) Use a variety of approaches (inductive and deductive reasoning, estimations, generalizations, formal and informal methods of proof) to analyze algorithms.		MCWR-S2C1-08 (2008) Draw a line of best fit for a scatterplot with or without technology, describe how the correlation coefficient relates to fit, and explain when it is appropriate to use the regression equation to make predictions. STAYED IN ALGEBRA 2 HS.S-ID.6a-c; HS.S-ID.8 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.S-ID.6a-c	HS.F-IF.9 (2010) Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</i>

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S2C1-09 (2008) Use matrices to organize and represent data. MOVED FROM ALGEBRA 2 TO 9-10 HS.N-VM.7	HS.F-LE.4 (2010) For exponential models, express as a logarithm the solution to $a b^{ct} = d$ where $a$ , $c$ , and $d$ are numbers and the base $b$ is 2, 10, or $e$ ; evaluate the logarithm using technology.
		MCWR-S2C2-02 (2008) Use the principal characteristics of the normal distribution to estimate probabilities. STAYED IN ALGEBRA 2 HS.S-ID.4 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.S-ID.4	HS.F-TF.2 (2010) Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
		MCWR-S3C1-01 (2008) Analyze sequences and series and use them in modeling, including <ul style="list-style-type: none"> <li>• explicit formulas for <math>n</math>th terms,</li> <li>• sums of finite arithmetic series, and</li> <li>• sums of finite geometric series.</li> </ul> STAYED IN ALGEBRA 2 HS.A-SSE.4 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.A-SSE.4	HS.F-TF.4 (2010) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.
		MCWR-S3C1-02 (2008) Apply recursive formulas for arithmetic and geometric sequences to solve problems. MOVED FROM 4 <sup>TH</sup> CREDIT TO 9-10 HS.F-BF.1 & HS.F-BF.2 AND ALGEBRA 2 HS.F-BF.1	HS.F-TF.5 (2010) Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C1-03 (2008) Distinguish between explicit and recursive formulas and convert between them, making good choices about when to use which. MOVED FROM ALGEBRA 2 TO 9-10 HS.F-BF.2	HS.F-TF.6 (2010) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
		MCWR-S3C1-04 (2008) Solve problems involving recursion. STAYED IN ALGEBRA 2 HS.F-BF.1 AND REDISTRIBUTED TO 9-10 HS.F-BF.1	HS.F-TF.7 (2010) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.
		MCWR-S3C1-05 (2008) Use and interpret sigma notation to represent summation. STAYED IN ALGEBRA 2 HS.A-SSE.4 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.A-SSE.4	HS.F-TF.9 (2010) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.
		MCWR-S3C2-01 (2008) Express and solve problems that can be modeled using linear, quadratic, logarithmic, exponential, cubic, reciprocal, absolute value, and step and other piecewise-defined functions; interpret their solutions in terms of the context. STAYED IN ALGEBRA 2 HS.F-LE.2 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.F-BF.1 & HS.F-LE.2	HS.G-CO.1 (2010) Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C2-02 (2008) Use function notation flexibly and evaluate a function at a value represented by an algebraic expression. MOVED FROM ALGEBRA 2 TO 9-10 HS.F-IF.2	HS.G-CO.3 (2010) Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
		MCWR-S3C2-03 (2008) Graph absolute value, and step and other piecewise-defined functions identifying their key characteristics. STAYED IN ALGEBRA 2 HS.F-IF.7 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.F-IF.7	HS.G-CO.4 (2010) Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
		MCWR-S3C2-09 (2008) Find domain, range, intercepts, period, amplitude, and asymptotes of trigonometric functions. MOVED FROM 4 <sup>TH</sup> CREDIT TO ALGEBRA 2 HS.F-IF.7	HS.G-CO.5 (2010) Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.
		MCWR-S3C2-10 (2008) Given a function <ul style="list-style-type: none"> <li>• find the inverse of the function,</li> <li>• determine whether the inverse is a function,</li> </ul> explain why the graph of a function and its inverse are reflections of each other over the line $y = x$ . MOVED FROM ALGEBRA 2 TO 4 <sup>TH</sup> CREDIT HS.F-BF.4	HS.G-CO.6 (2010) Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.



## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C2-12 (2008) Use theorems of polynomial behavior (including but not limited to the Fundamental Theorem of Algebra, Remainder Theorem, the Rational Root Theorem, Descartes Rule of Signs, the Conjugate Root Theorem) to find the zeros of a polynomial function. STAYED IN 4 <sup>TH</sup> CREDIT HS.A-APR.2 AND REDISTRIBUTED TO ALGEBRA 2 HS.N-CN.9	HS.G-CO.7 (2010) Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
		MCWR-S3C2-14 (2008) Combine functions by composition, as well as by addition, subtraction, multiplication, and division including any necessary restrictions on the domain. STAYED IN ALGEBRA 2 HS.F-BF.1 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.F-BF.1 & HS.F-BF.4b,d	HS.G-CO.8 (2010) Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.
		MCWR-S3C2-15 (2008) Determine if functions are even, odd, or neither both algebraically and graphically. MOVED FROM ALGEBRA 2 TO 4 <sup>TH</sup> CREDIT HS.F-BF.3	HS.G-CO.13 (2010) Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C2-17 (2008) Develop an informal notion of limits. STAYED IN 4 <sup>TH</sup> CREDIT HS.G-GMD.1 AND REDISTRIBUTED TO 9-10 HS.G-GMD.1	HS.G-SRT.1 (2010) Verify experimentally the properties of dilations given by a center and a scale factor: a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
		MCWR-S3C3-01 (2008) Rewrite and describe the need for equivalent forms of algebraic expressions. STAYED IN ALGEBRA 2 HS.F-IF.8 AND REDISTRIBUTED TO 9-10 HS.A-SSE.3 AND 4 <sup>TH</sup> CREDIT HS.A-SSE.3	HS.G-SRT.2 (2010) Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
		MCWR-S3C3-02 (2008) Apply the laws of exponents including rational and negative exponents to rewrite expressions in alternative forms. STAYED IN ALGEBRA 2 HS.N-RN.1 & HS.N-RN.2 AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.A-SSE.3	HS.G-SRT.3 (2010) Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C3-03 (2008) Solve systems of three linear equations in three variables with or without technology. STAYED IN ALGEBRA 2 HS.A-REI.8 & HS.A-REI.9 AND REDISTRIBUTED TO 9-10 HS.A-REI.6	HS.G-SRT.4 (2010) Prove theorems about triangles. <i>Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.</i>
		MCWR-S3C4-01 (2008) Analyze and describe how a change in an independent variable leads to a change in a dependent variable. STAYED IN ALGEBRA 2 HS.F-LE.1a-c AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.F-LE.1a-c	HS.G-SRT.6 (2010) Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
		MCWR-S3C4-03 (2008) Analyze change in various contexts by modeling and solving word problems using functions and equations. STAYED IN ALGEBRA 2 HS.F-LE.1a-c AND REDISTRIBUTED TO 4 <sup>TH</sup> CREDIT HS.F-LE.1a-c	HS.G-SRT.7 (2010) Explain and use the relationship between the sine and cosine of complementary angles.
		MCWR-S3C4-05 (2008) Solve problems involving compound interest. STAYED IN 4 <sup>TH</sup> CREDIT HS.F-LE.1a; HS.F-LE.2 & HS.F-LE.5 AND REDISTRIBUTED TO ALGEBRA 2 HS.F-LE.1a; HS.F-LE.2 & HS.F-LE.5	HS.G-SRT.9 (2010) Derive the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C4-06 (2008) Demonstrate the relationship between <ul style="list-style-type: none"> <li>• simple interest and linear growth and</li> <li>• compound interest and exponential growth.</li> </ul> STAYED IN 4 <sup>TH</sup> CREDIT HS.F-LE.1a-c AND HS.F-LE.5 AND REDISTRIBUTED TO ALGEBRA 2 HS.F-LE.1a-c AND HS.F-LE.5	HS.G-C.1 (2010) Prove that all circles are similar.
		MCWR-S3C4-07 (2008) Determine the total cost of purchasing consumer durables over time given different down payments, financing options, and fees. STAYED IN 4 <sup>TH</sup> CREDIT HS.A-SSE.4 AND REDISTRIBUTED TO ALGEBRA 2 HS.A-SSE.4	HS.G-C.3 (2010) Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
		MCWR-S3C4-08 (2008) Apply a variety of strategies to use tax tables and determine, calculate, and complete yearly federal income tax. STAYED IN 4 <sup>TH</sup> CREDIT HS.F-IF.7b AND REDISTRIBUTED TO ALGEBRA 2 HS.F-IF.7b	HS.G-C.4 (2010) Construct a tangent line from a point outside a given circle to the circle.

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S3C4-09 (2008) Develop a personal budget including debit, checking, and savings accounts by interpreting multiple personal budget examples. STAYED IN 4 <sup>TH</sup> CREDIT HS.N-Q.2 AND REDISTRIBUTED TO 9-10 HS.N-Q.2 AND ALGEBRA 2 HS.A-CED.1	HS.G-GMD.2 (2010) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.
		MCWR-S3C4-10 (2008) Determine an effective retirement savings plan to meet personal financial goals including IRAs, ROTH accounts, and annuities. STAYED IN 4 <sup>TH</sup> CREDIT HS.A-SSE.4 AND REDISTRIBUTED TO ALGEBRA 2 HS.A-SSE.4	HS.G-GMD.4 (2010) Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.
		MCWR-S3C4-11 (2008) Compare and contrast the role of insurance as a device to mitigate risk and calculate expenses of various options. STAYED IN 4 <sup>TH</sup> CREDIT HS.S-MD.5b AND REDISTRIBUTED TO ALGEBRA 2 HS.S-MD.5b	HS.G-MG.1 (2010) Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).
		MCWR-S4C1-01 (2008) Perform basic geometric constructions using a variety of methods, including <ul style="list-style-type: none"> <li>perpendicular bisector of a line segment,</li> <li>bisector of an angle, and</li> <li>perpendicular or parallel lines.</li> </ul> MOVED FROM 4 <sup>TH</sup> CREDIT TO 9-10 HS.G-CO.12	HS.G-MG.2 (2010) Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S4C1-03 (2008) Apply the law of cosines and the law of sines to find missing sides and angles of triangles. STAYED IN 4 <sup>TH</sup> CREDIT HS.G-SRT.10 & HS.G-SRT.11 AND REDISTRIBUTED TO ALGEBRA 2 HS.G-SRT.10 & HS.G-SRT.11	HS.G-MG.3 (2010) Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).
		MCWR-S4C2-01 (2008) Describe how changing the parameters of a quadratic function affects the shape and position of its graph ( $f(x) = a(x-h)^2 + k$ ). MOVED FROM ALGEBRA 2 TO 4 <sup>TH</sup> CREDIT HS.F-BF.3	HS.S-ID.5 (2010) Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
		MCWR-S4C2-02 (2008) Describe how changing the parameters of an exponential function affects the shape and position of its graph ( $f(x) = ab^x$ ). MOVED FROM ALGEBRA 2 TO 4 <sup>TH</sup> CREDIT HS.F-BF.3	HS.S-IC.4 (2010) Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.
		MCWR-S4C3-01 (2008) Graph the solution set of a system of two or three linear inequalities and given an ordered pair, determine whether it is a solution to the system. MOVED FROM ALGEBRA 2 TO 9-10 HS.A-REI.12	HS.S-CP.1 (2010) Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
		MCWR-S4C3-02 (2008) Determine an equation of a circle given its center and radius; given an equation of a circle, find its center and radius. STAYED IN ALGEBRA 2 HS.G-GPE.1 AND REDISTRIBUTED TO 9-10 HS.A-CED.3	HS.S-MD.1 (2010) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.
		MCWR-S4C3-04 (2008) Graph all six trigonometric functions identifying their key characteristics. MOVED FROM 4 <sup>TH</sup> CREDIT TO ALGEBRA 2 HS.F-IF.7e	HS.S-MD.2 (2010) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.
		MCWR-S4C3-06 (2008) Convert between rectangular and polar coordinates. MOVED FROM 4 <sup>TH</sup> CREDIT TO ALGEBRA 2 HS.N-CN.4	HS.S-MD.4 (2010) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. <i>For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?</i>

## Summary of Changes to Arizona's Common Core Standards – Mathematics

<b>HIGH SCHOOL</b>			
<b>Addressed by AIMS (2013 and 2014)</b>		<b>Addressed by PARCC (2015)</b>	
<b>Removed from Specifically Being Tested in 2015</b>	<b>Moved to a Different Grade Level</b>	<b>Moved within the Grade Level</b>	<b>New Standards</b>
			HS.S-MD.5 (2010) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values. a. Find the expected payoff for a game of chance. <i>For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.</i>
			HS.S-MD.6 (2010) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).
			HS.S-MD.7 (2010) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).